$$= \frac{3}{4} - \frac{13}{4}\left(\frac{1}{5}\right)^{n+1}$$

Conclusion : $\forall n \in \mathbb{N}^*$ $\quad p_n = \frac{3}{4} - \frac{13}{4}\left(\frac{1}{5}\right)^n$

6°) $\lim\limits_{n\to+\infty} p_n = \lim\limits_{n\to+\infty} \frac{3}{4} - \frac{13}{4}\left(\frac{1}{5}\right)^n = \frac{3}{4}$ ($\left(\frac{1}{5}\right)^n \to 0$)

car $-1 < \frac{1}{5} < 1$

Donc $\lim\limits_{n\to+\infty} p_n = \frac{3}{4}$

Qarray.tn -Agra Blech- Qarray.tn